

WHAT IS CLAIMED IS:

5.6 A.) 1. An image processor for printing, comprising:
an expander for expanding supplied compressed image
data every color in said first or second color space;

5 an expanded image memory for storing expanded image
data in said first or second color space expanded by said
expander;

image data supply means for reading said expanded image
data from said expanded image memory, thereby (i) converting
10 said read data to expanded image data in second color space if
said read data is expanded image data in said first color space
and (ii) not converting said read data if said read data is
expanded image data in said second color space; and

15 a print engine for receiving said expanded image data
in said second color space from said image data supply means
to thereby print with toner in said second color space.

2. An image processor for printing according to
claim 1, wherein said expanded image memory has capacity enough
20 to store expanded image data at least for number of colors in
said first color space, and

said image data supply means reads expanded image data
in said first color space from said expanded image memory in
parallel and converts it to expanded image data in said second
25 color space.

3. An image processor for printing, further comprising a reading buffer for expansion for reading said expanded image data from said expanded image memory and supplying it to said expander.

5 4. An image processor for printing according to claim 3, wherein said expanded image memory has capacity enough to store expanded image data at least for number of colors in said first color space, and

10 said reading buffer for expansion supplies the expanded image data of a corresponding color to said expander from said expanded image memory when said expander expands compressed image data in said first color space.

15 5. An image processor for printing according to any one of claims 1 to 3, wherein image data in said first color space includes the image data of at least red (R), green (G) and blue (B), and image data in said second color space includes the image data of at least cyan (C), magenta (M), yellow (Y)
20 and black (K).

25 6. An image processor for printing according to claim 1, wherein image data in said first color space includes four types of data having the image data of at least red (R), green (G) and blue (B) and color conversion attribute data (X), image data in said second color space includes four types of data of at least cyan (C), magenta (M), yellow (Y) and black

(K),

said expanded image memory includes first and second expanded image memories respectively having capacity enough to store at least four data, and

5 said image data supply means (i) reads expanded image data in said first color space from said first and second expanded image memories in parallel, converts it to expanded image data in said second color space if said expanded image data is in said first color space, or (ii) suitably reads
10 expanded image data corresponding to predetermined color from said first and second expanded image memories if said expanded image data is in said second color space.

7. An image processor for printing according to
15 claim 1, wherein said print engine complies with a tandem system for printing the image data of plural colors in parallel,

said expanded image memory has capacity enough to store expanded image data corresponding to plural colors, and

said image data supply means (i) reads expanded image
20 data in said first color space from said expanded image memory in parallel, converts it to expanded image data in said second color space and supplies it to said print engine, or (ii) supplies expanded image data in said second color space read from said expanded image memory and corresponding to said plural
25 colors to said print engine in parallel.

8. An image processor for printing, comprising:
an expander for expanding supplied compressed image
data every color in said first or second color space;

an expanded image data memory having capacity enough
5 to store expanded image data at least for number of colors in
said first color space, and for storing expanded image data in
said first or second color space expanded by said expander;

image data supply means for reading said expanded image data from said expanded image memory, thereby (i) converting said read data to expanded image data in second color space if said read data is expanded image data in said first color space and (ii) not converting said read data if said read data is expanded image data in said second color space; and

15 a print engine for receiving said expanded image data
in said second color space from said image data supply means
to thereby print with toner in said second color space.

9. An image processor for printing according to claim 8, wherein said image data supply means reads expanded image data at least for number of colors in said first color space from said expanded image memory in parallel and converts it to expanded image data in said second color space.

10. An image processor for printing according to
25 claim 1, wherein said print engine complies with a tandem system
for printing the image data of plural colors in parallel, and
said image data supply means (i) reads expanded image

data in said first color space from said expanded image memory in parallel, converts it to expanded image data in said second color space and supplies it to said print engine, or (ii) supplies expanded image data in said second color space read from said expanded image memory and corresponding to said plural colors to said print engine in parallel.

11. An image processor for printing, comprising:
an expander for expanding supplied compressed image data every color in said first or second color space;
plural expanding units respectively having an expanded image memory for storing expanded image data in said first or second color space expanded by said expander and corresponding to at least number of colors in said first color space;

image data supply means for reading said expanded image data from said expanded image memory, thereby (i) converting said read data to expanded image data in second color space if said read data is expanded image data in said first color space and (ii) not converting said read data if said read data is expanded image data in said second color space; and

a print engine for receiving said expanded image data in said second color space from said image data supply means to thereby print with toner in said second color space.

12. An image processor for printing according to claim 11, wherein said plural expanding units expand compressed image data every color in said first color space in parallel

if said compressed image data corresponds to said first color space, and

5 said image data supply means reads expanded image data in said first color space from said expanded image memory in parallel and converts it to expanded image data in said second color space.

13. An image processor for printing according to any one of claims 11 and 12, further comprising a compressed
10 image memory provided before said expanding unit for storing compressed image data in said first color space every color is provided, and

compressed image data in said first color space stored in said compressed image memory is supplied to a respective
15 corresponding expanding unit in parallel.

14. An image processor for printing according to claim 11, wherein said print engine complies with a tandem system for printing the image data of plural colors in parallel,
20 and

said image data supply means (i) reads expanded image data in said first color space from said expanded image memory in parallel, converts it to expanded image data in said second color space and supplies it to said print engine, or (ii)
25 supplies expanded image data in said second color space read from said expanded image memory and corresponding to said plural colors to said print engine in parallel.